

CLAIMS

1. Circulating air oven (1) for treating a material web (25) guided through the circulating air oven (1), comprising means for supplying air and means for discharging air and a blower (15) for conveying air, as well as at least one transport mechanism (17) for transport of the material web (25) through a passage space (77) between two rows of nozzle chambers (27), which guide air, which are arranged one above the other, and which extend perpendicular to a transport direction (T) of a conveyor belt (21) and having nozzles (29) arranged opposite each other, wherein the nozzle chambers (27) are connectable to a pressure side of the blower (15) by a control means (35, 149, 53, 71, 79), characterized in that the individual nozzle chambers (27) are selectively connectable to the pressure side or to a suction side of the blower (15, 55).

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2. Circulating air oven according to claim 1, characterized in that the pressure and the suction sides of the blower (15, 55) are connected to each other by a conduit (57) and a heating system (9, H) or a cooling system (C) and/or a filter (F) are inserted in the conduit (57).

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3. Circulating air oven according to claim 1, characterized in that air can be conveyed into a pressure chamber (5) by the blower (15) and the pressure chamber (5) can be connected to each individual one of the nozzle chambers (27) by opening pressure flaps (35) or diversion flaps (79) and that a suction chamber (39) connected to the suction side of the blower (15) is arranged

and can be connected by suction flaps (49) to the individual nozzle chambers (27).

4. Circulating air oven according to claim 2, characterized in that the suction chamber (39) is connected by a slide (45) with a return flow chamber (7) having a heating chamber (8).

5. Circulating air oven according to one of claims 1 to 4, characterized in that the suction and pressure flaps, as well as valves (35, 49, 53) can be activated individually, in groups, or together.

6. Circulating air oven according to one of claims 1 to 5, characterized in that cross sections of the nozzles (29) can be set and adjusted individually, in groups, or together.

15 7. Circulating air oven according to one of claims 1 to 6, characterized in that a distance of opposing ones of the nozzle chambers (27) and/or pressure plates fixed thereon to the material web (25) can be set and adjusted.

20 8. Circulating air oven according to one of claims 1 to 7, characterized in that elastic bands (71) movable in guides (73) are formed on the nozzle chambers (27) as control flaps.

25 9. Circulating air oven according to claim 1, characterized in that the nozzle chambers (27) have a shape of a right parallelepiped, at least partially open on end surfaces by openings (85, 87), and a diversion flap (79) dividing an

interior into two wedge-shaped halves is supported in the right parallelepiped so that the flap can pivot.

10. Circulating air oven according to claim 9, characterized in that the diversion flap (79) can pivot about a shaft (A) running through a center from a suction position into a pressure position, and the openings (85, 87) are each respectively connected to a pressure chamber (5) and a suction chamber (39) via the end surfaces of the nozzle chambers (27).
- 10 11. Circulating air oven according to claim 10, characterized in that a closing flap (89) is coupled to the diversion flap (79).
12. Circulating air oven according to claim 11, characterized in that the pressure chamber (5) and the suction chamber (39) extend over an entire 15 length of the nozzle chambers (27) arranged one next to the other and that a length (L) of the nozzle chambers (27) is adapted to a width of the material web (25).
13. Circulating air oven according to one of claims 9 to 12, characterized in 20 that the pressure chamber (5) is connected to a heating element, a cooling element, and/or a dryer.